Escoamentos (Grandezas)

Campos de Velocidades

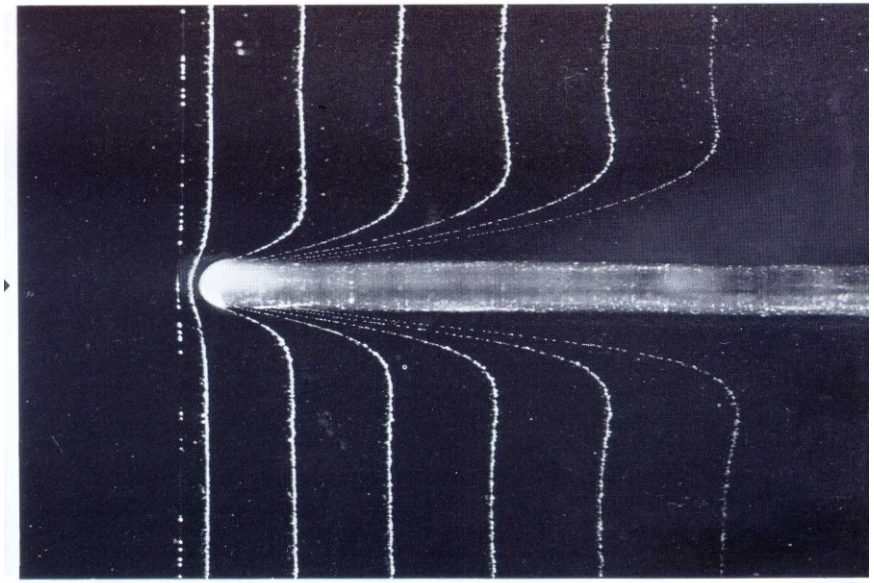
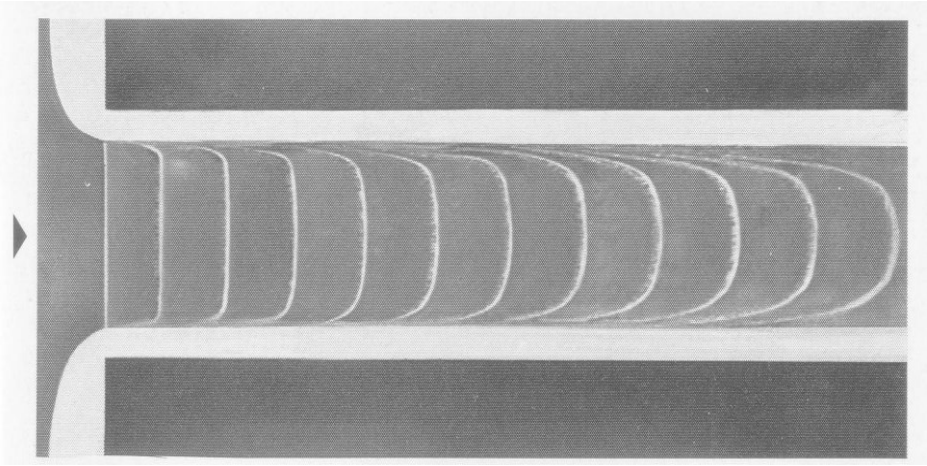


Fig. 20. Development of laminar boundary layer (0.01% salt water, free steam velocity 0.(
cm/s, thickness of the plate 0.5 mm, hydrogen bubble method)

Escoamentos externos não são confinados por paredes .

Escoamentos internos possuem fronteiras que limitam ou restringem o campo de escoamento



Campos de Velocidades

Soluções continuidade e QDM

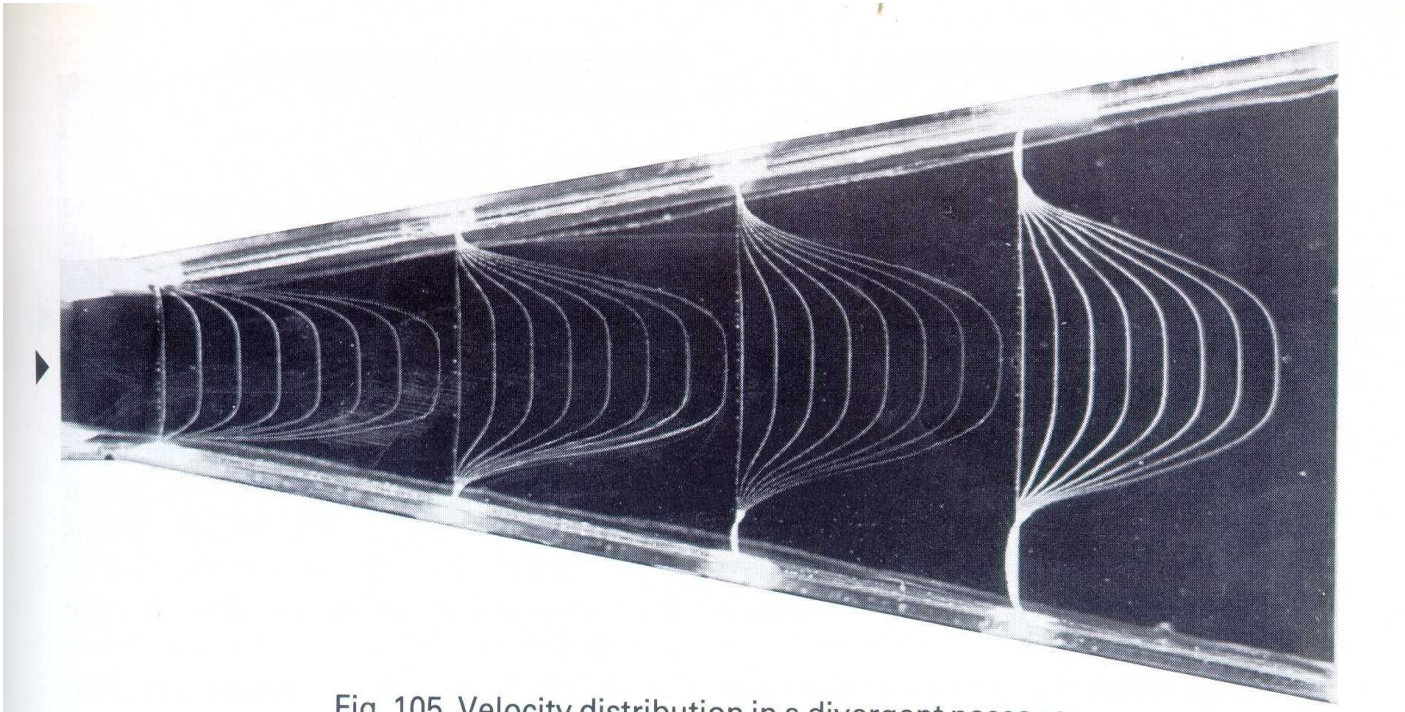


Fig. 105. Velocity distribution in a divergent passage (water, velocity = 3.0 cm/s, inlet width = 30 mm, divergence angle = 20°, *Re* = 900, hydrogen bubble method).

Campos de Velocidades

Soluções continuidade e QDM

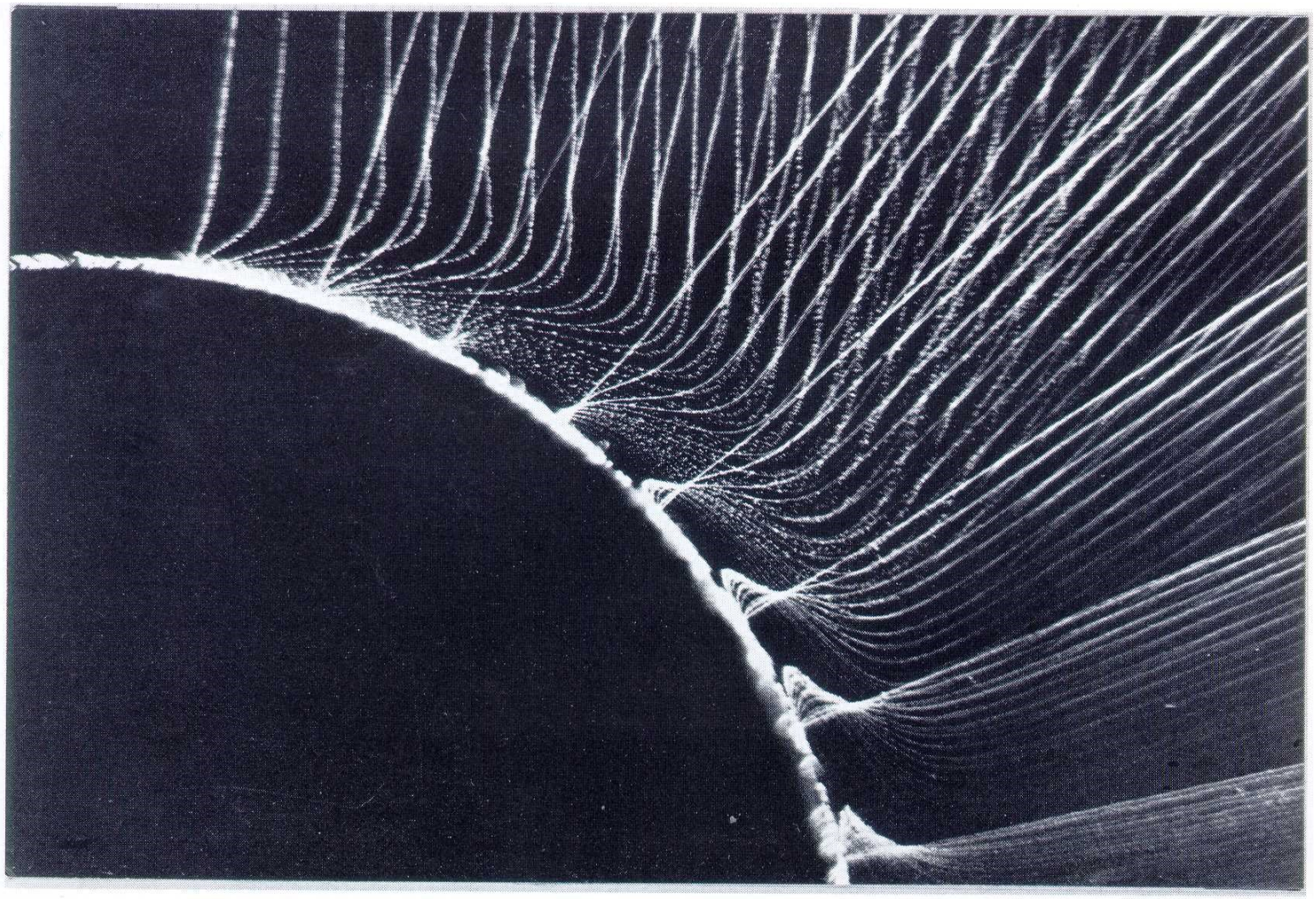
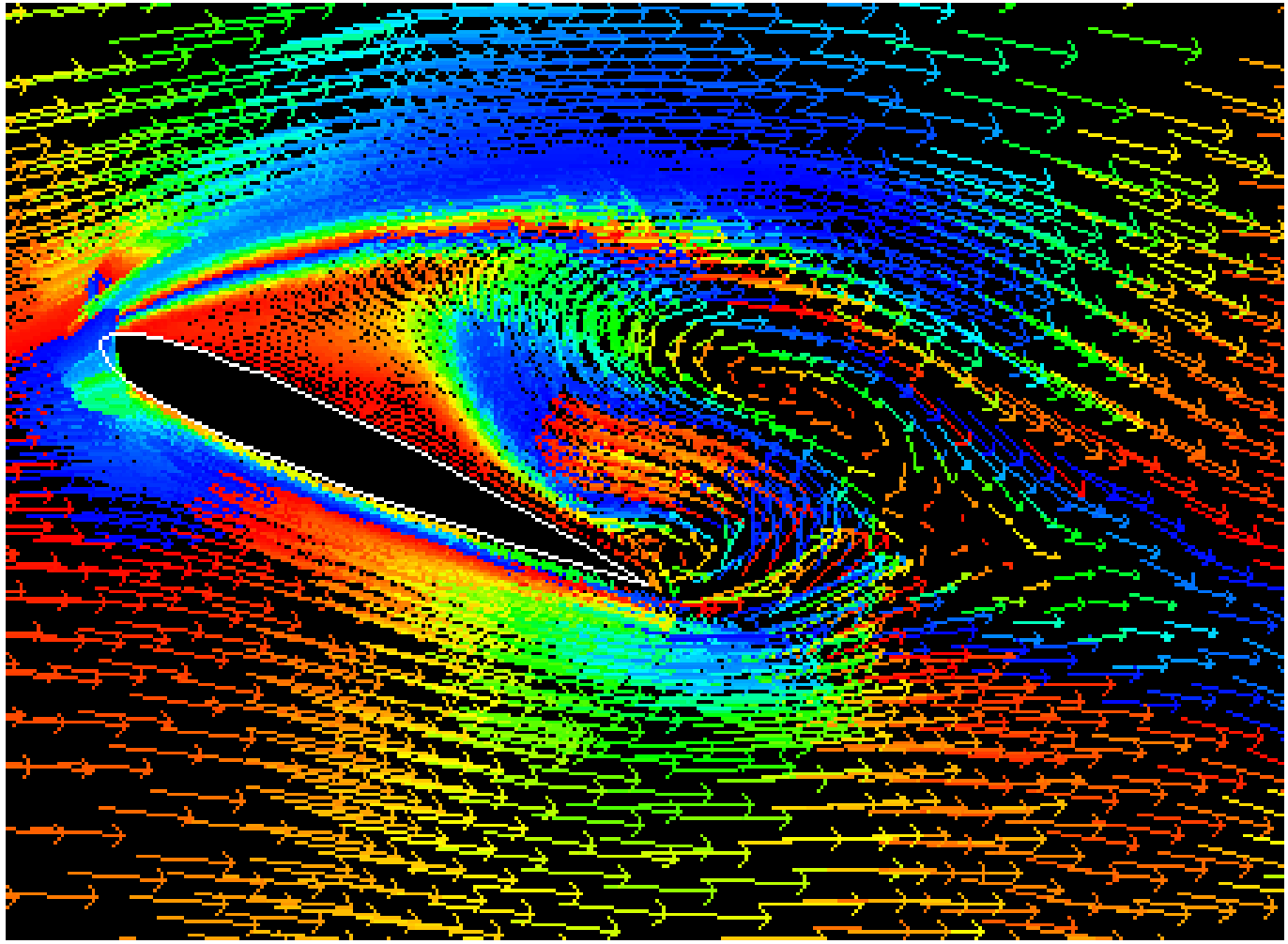


Fig. 22. Water, velocity of motion 2 cm/s, cylinder diameter 70 mm, photographed two seconds after the start of motion, $Re = 1.2 \times 10^3$, hydrogen bubble method.

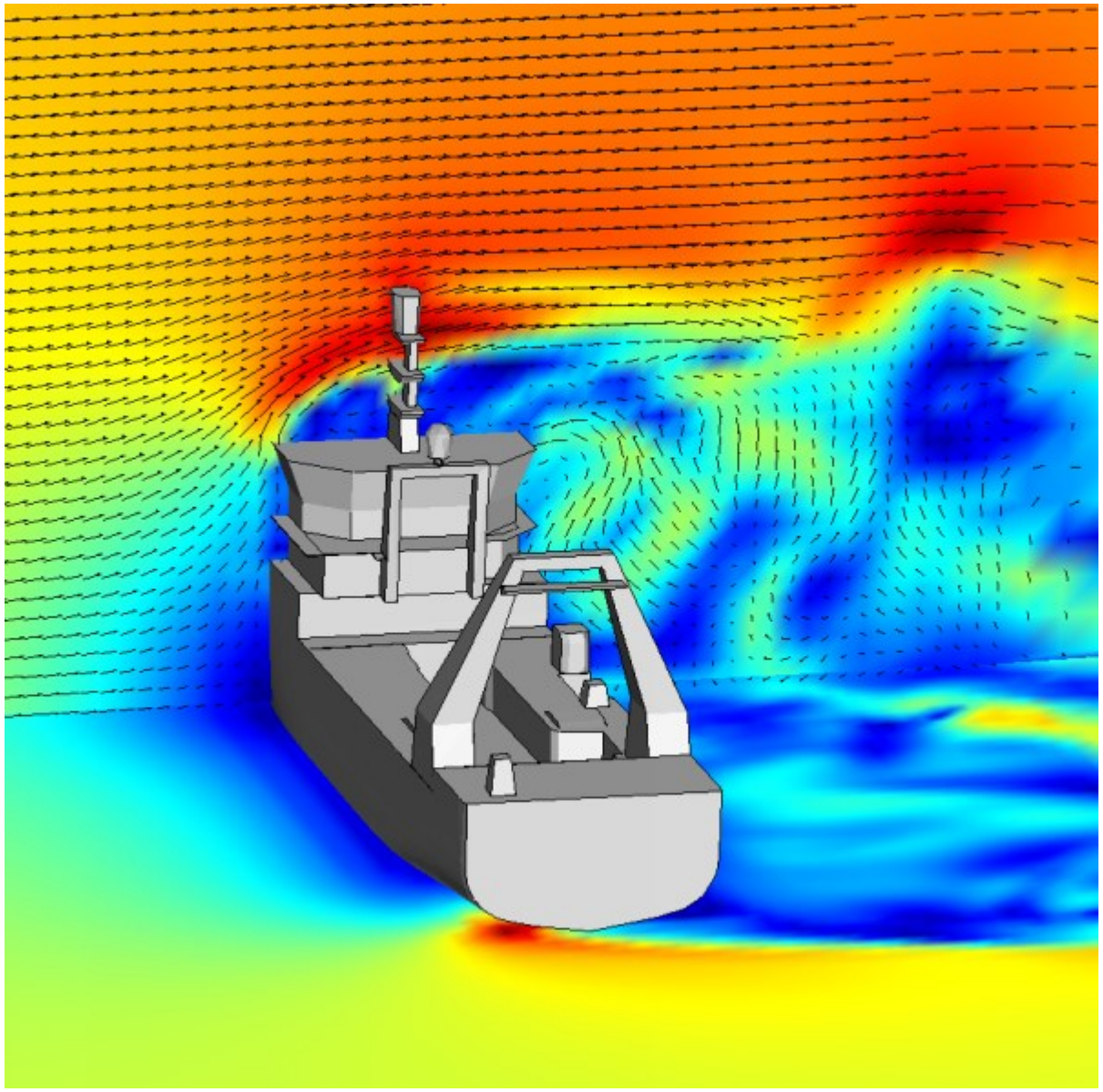
Campos de Velocidades

Soluções continuidade e QDM (www.math.chalmers.se)



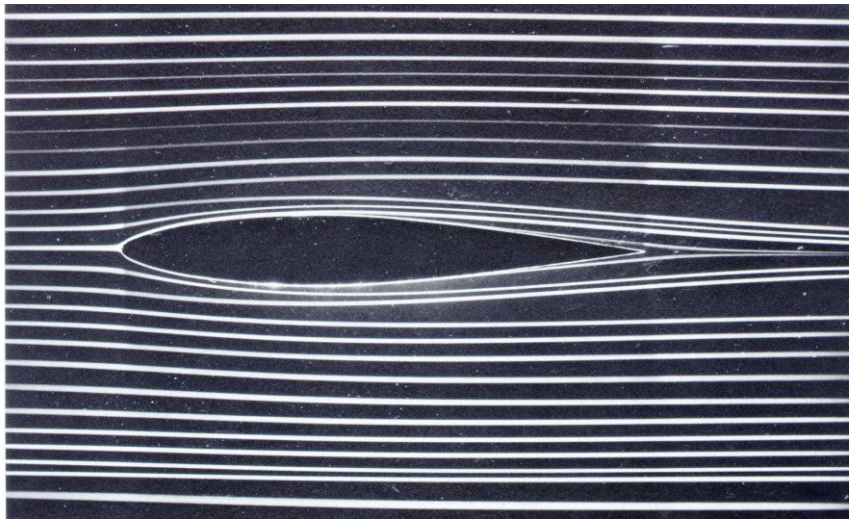
Campos de Velocidades

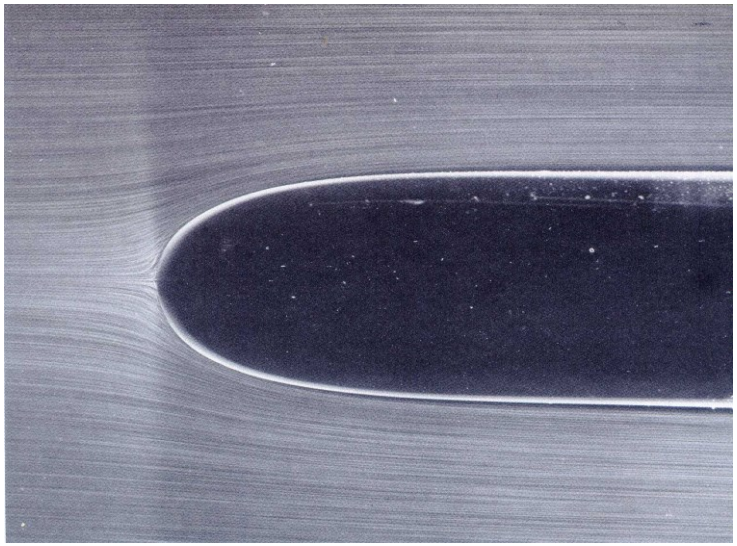
Soluções continuidade e QDM (www.gfs.sourceforge.net)

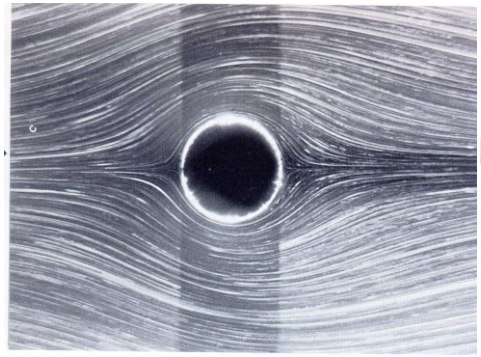


Linhas de Corrente

Função Corrente







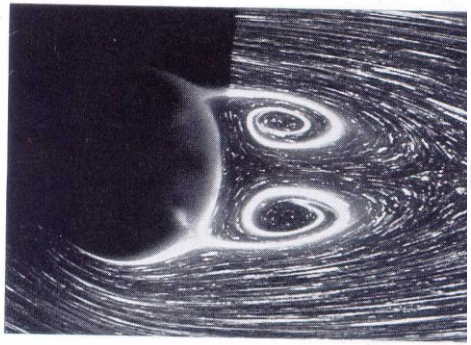


Fig. 3. Flow around a circular cylinder a
= 19 (water, flow velocity 0.20 cm/s, cylir
diameter 1.0 cm, aluminium pow
method and electrolytic precipitat
method).

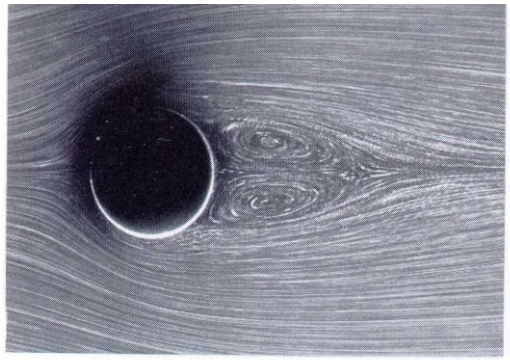


Fig. 4. Flow around a circular cylinder at *Re*
= 26 (water, flow velocity 0.25 cm/s, cylinder
diameter 1.0 cm, aluminium powder
method).

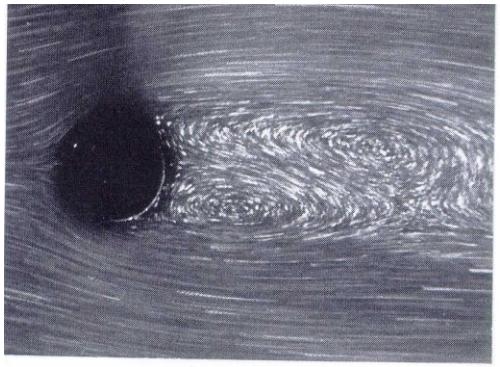


Fig. 5. Flow around a circular cylinder at *Re*
= 55 (water, flow velocity 0.55 cm/s, cylinder
diameter 1.0 cm, aluminium powder
method).

Linhas de Corrente

Função Corrente

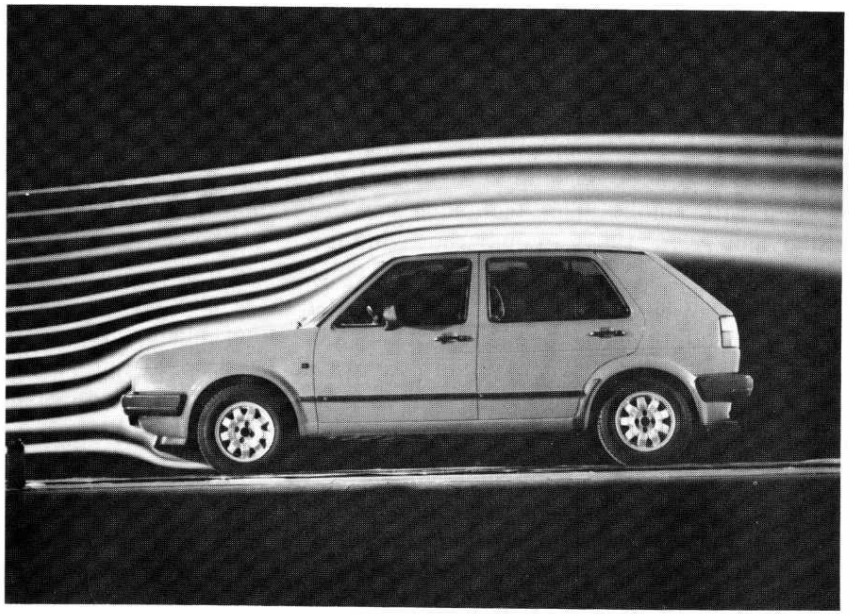
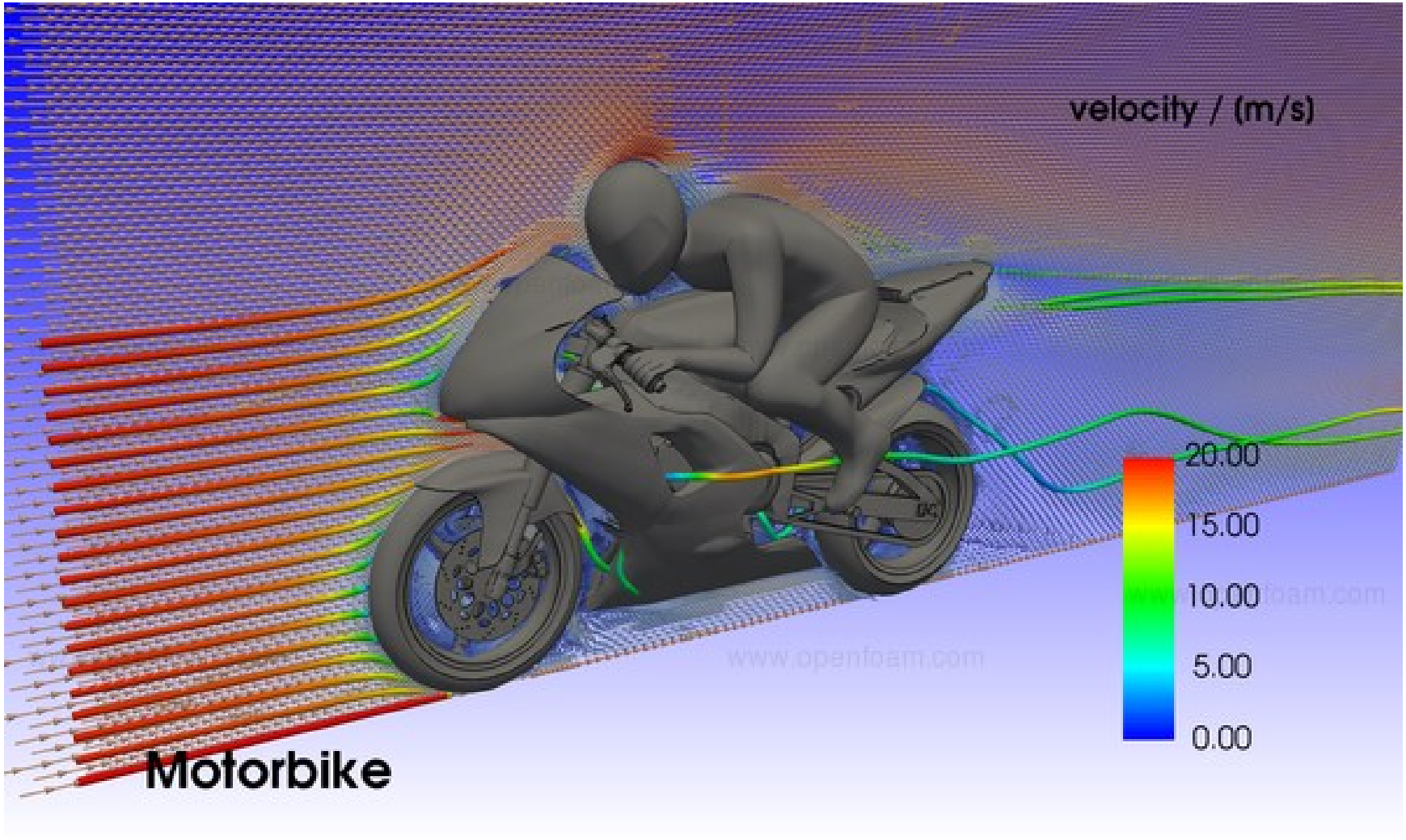


Fig. 2.13 Smoke lines around a road vehicle in a full-scale wind tunnel. (Courtesy of Volkswagenwerk AG.)

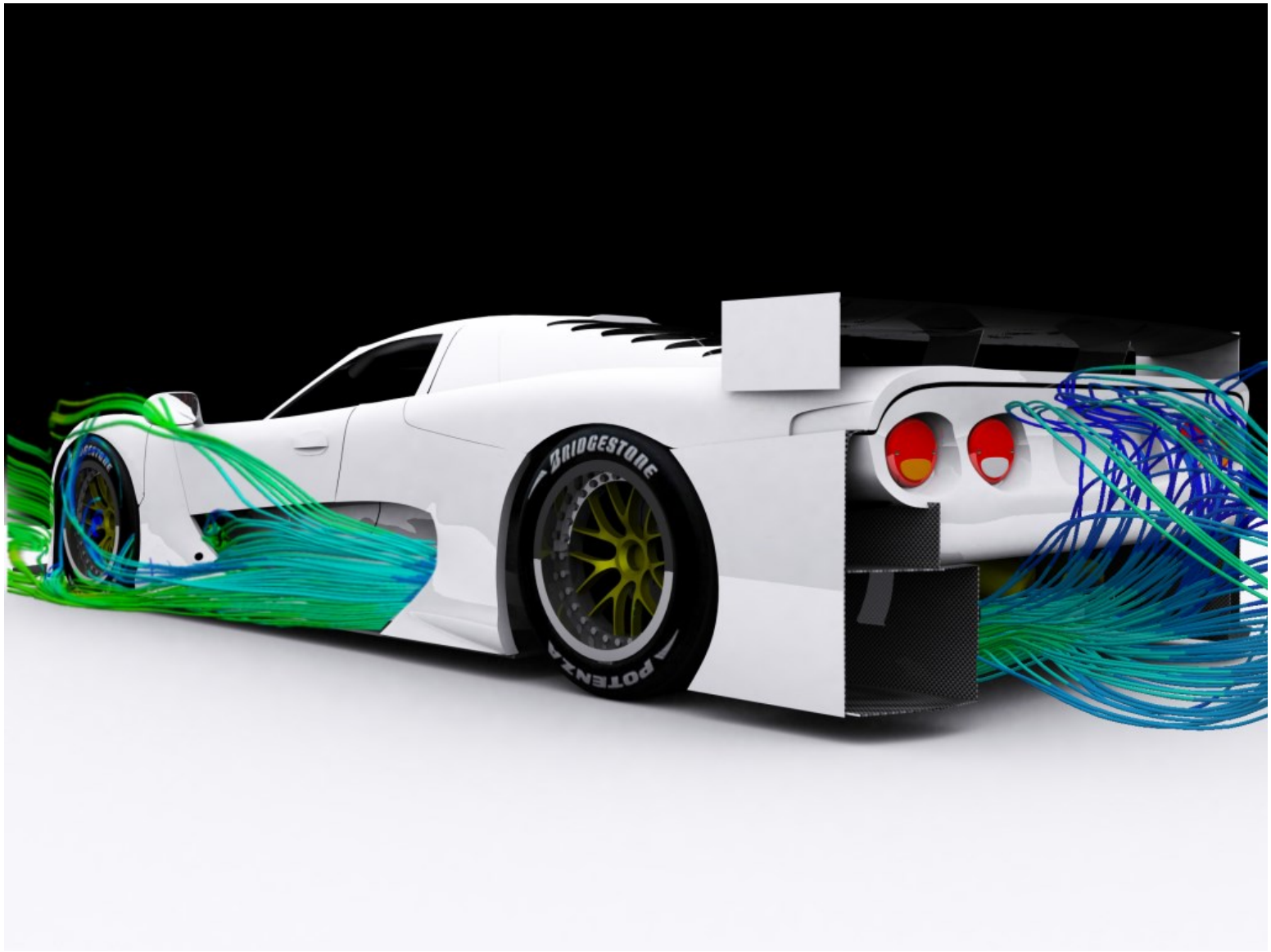
Linhas de Corrente

Função Corrente (www.openfoam.com)



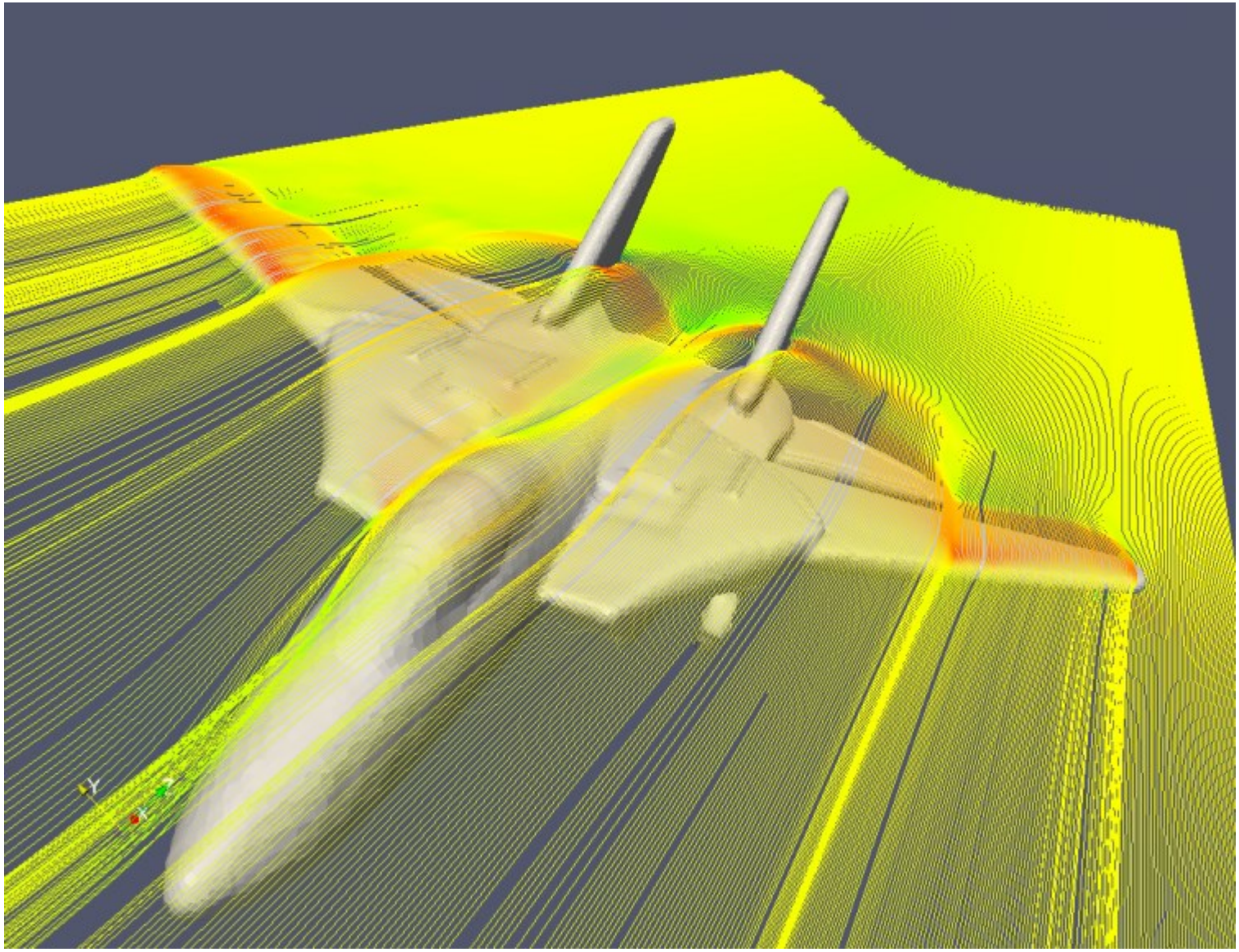
Linhas de Corrente

Função Corrente (www.totalsimulation.co.uk)



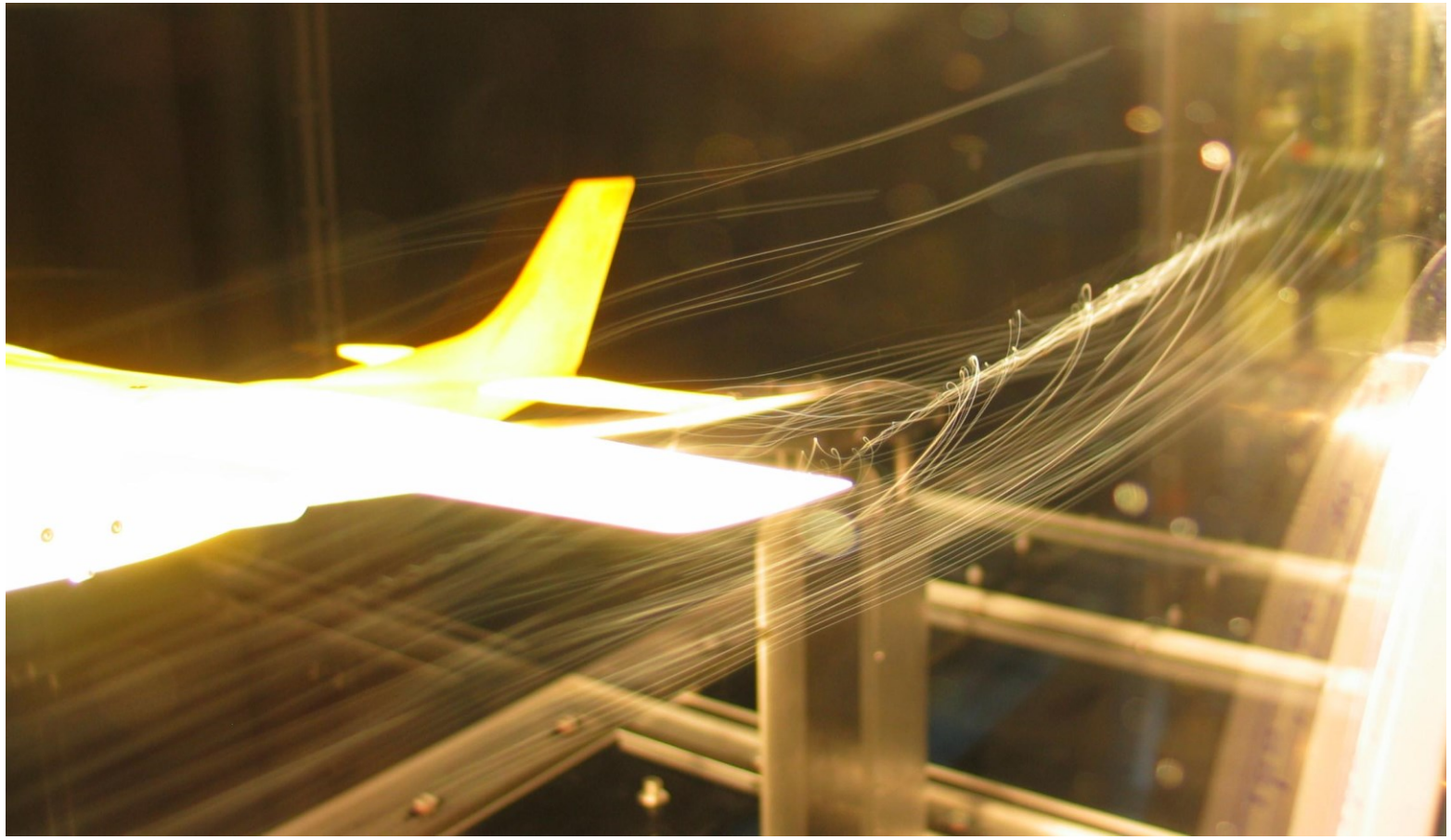
Linhas de Corrente

Função Corrente (hmf.enseeiht.fr)



Vorditicade em Esteiras e Turbillões

Vorticidade ou rotação (em.wikipedia.org)



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Vorditicade em Esteiras e Turbillões

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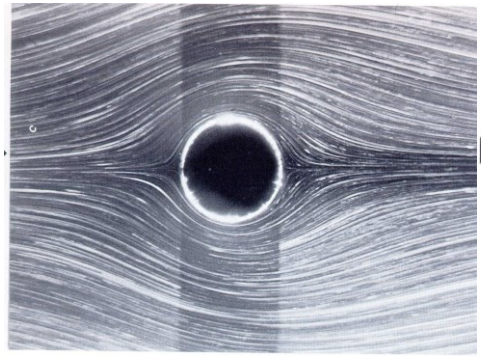

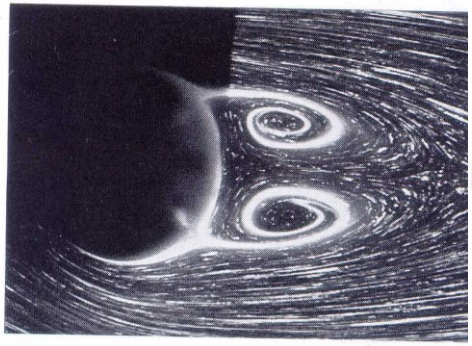

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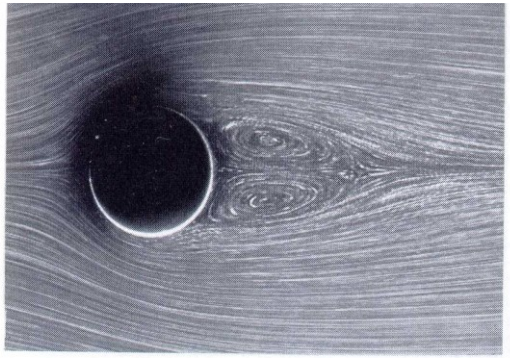

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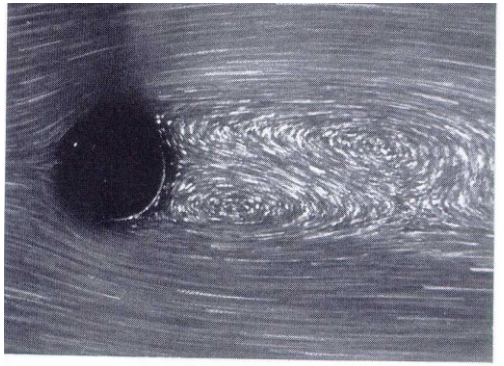

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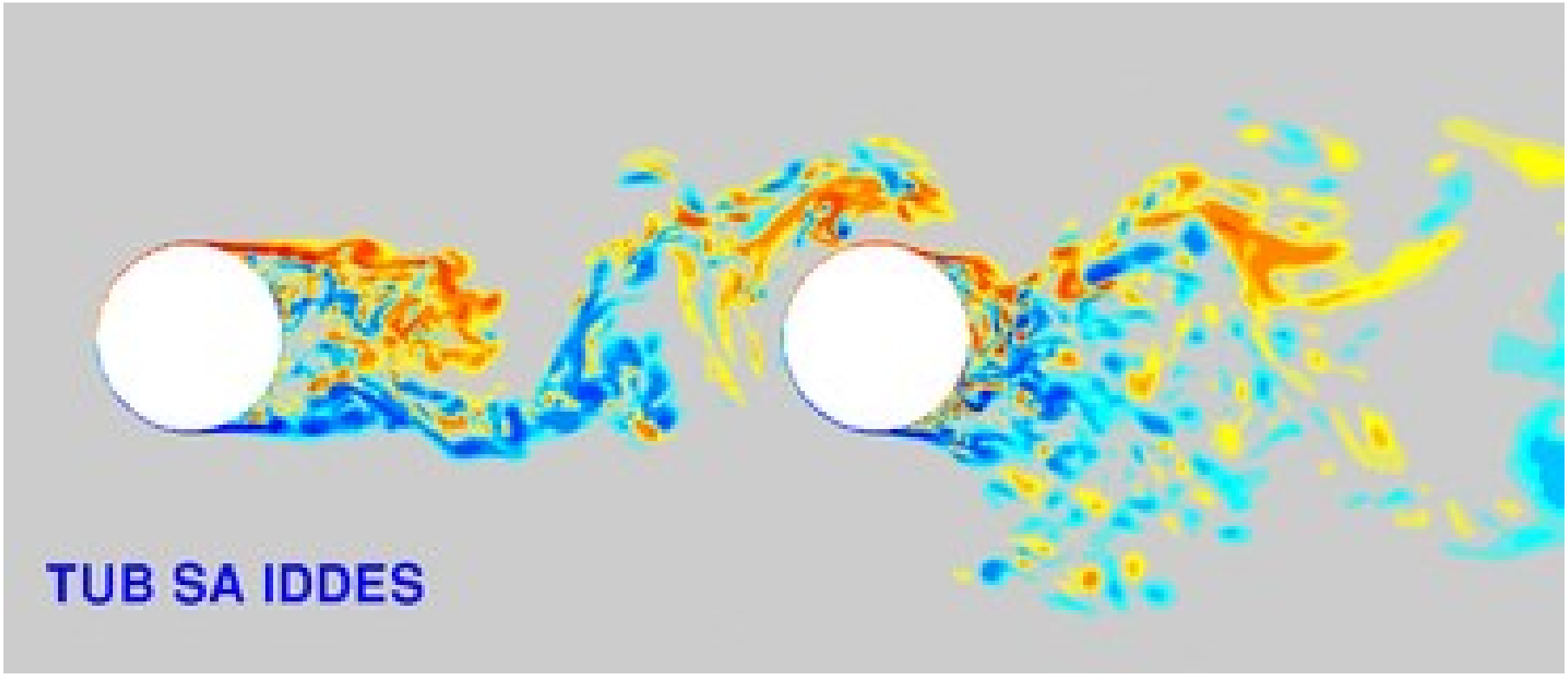
Vorditicade em Esteiras e Turbillões

Vorticidade ou rotação (uriah.dedi.melbourne.co.uk)



Vorditicade em Esteiras e Turbillões

Vorticidade ou rotação (www.cfd.mace.manchester.ac.uk)